

Application No.: 10/501,487
Amendment Dated: November 27, 2006
Reply to Office Action of: June 26, 2006

AOY-3983US

Remarks/Arguments:

Claims 1-18 were pending in the application. Applicant has cancelled claims 3, 5, and 7-18. With this response, claims 1, 2, 4 and 6 were amended. The amendments are supported in the specification, and no new matter has been introduced by these amendments. Accordingly, claims 1, 2, 4 and 6 are pending in this application.

Election/Restrictions

Applicant affirms election of the invention of Group 2, claims 1-6 and 13. Applicant has cancelled the claims of Group II, claims 7-12 and 14-18 without prejudice.

Specification

Applicant has amended the third paragraph of specification at page 22, starting at line 10, to remove the term "according to claim 2."

Rejected Under Section 35 U.S.C. § 112

Claims 2-6 and 13 have been rejected under 35 U.S.C. § 112, second paragraph. Applicant traverses the rejection in view of amendments to claims 2, 4 and 6. Examiner asserts the terms "identification code," "identification data," and "identification number" are vague and not defined by the claim. Applicant has clarified the term "identification data" in claims 2, 4 and 6 to refer to attribution information, which includes information selected from the manufacturer's name, a unique number such as an ID number and a sequence pattern information for the biomolecule bead array. Support is found, for example, at page 116 of the specification at lines 10-24. The term "identification code," as defined in the specification at page 21, lines 23-25 and at page 22, lines 6-8 refers to the arrangement of mark beads in the first or second section of the biomolecule bead-containing array indicating the attribution data information. The term "identification number," as defined in the specification at page 122, lines 8-21 corresponds to the address data of the biomolecule spot, which includes the attribution information of the biomolecule spot as recited in the specification at page 122, line 23 to page 123, line 18. Figure 40 illustrates how the

attribution information of the biomolecule spot corresponds to the identification number from an attribute table. Applicant respectfully submits that the amendments to claims 2, 4 and 6 overcome the Section 112 rejection.

The Examiner further asserts "a number" and "larger" in claim 3 is indefinite. Applicant has cancelled claim 3, but incorporated its features in claim 1, and respectfully disagree. Applicant points to Figures 50-54 in the specification, for example. Figure 52 depicts a glass tube 327 containing mark beads 322 and biomolecule beads 320. It is clear that the claimed number of the biomolecule beads is larger than the claimed number of mark beads. Figures 54a and 54b depict a second region of a DNA array 329 in the biomolecule bead-containing tube 327 where a number of the mark beads 322a-e, 322f-j, 333 and 334 is larger than the number of biomolecule beads 329, as claimed. In the second region, a light-transmissive mark bead 333 and a light-absorbing mark bead 334 are arranged. By interpreting the bead 333 as "1" and the bead 334 as "0," a binary data row "0101011 ..." is reproduced, containing identification information identifying bead-containing tube 327. As described in the specification (at page 115, lines 8-13), biomolecule bead-containing tubes can be identified and distinguished from one another. One of ordinary skill in the art would understand indeed the relationship of the claimed number of mark beads to biomolecule beads. Applicant respectfully submits the Section 112 rejection has been overcome.

Rejected Under Section 35 U.S.C. § 102

Claims 1-6 and 13 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,288,220 (Kambara et al.) corresponding to Japanese Patent No. 11-243997. Applicant traverses the rejection and has added the features of claim 3 to claim 1. As amended, claim 1 recites:

A biomolecule bead-containing tube containing ... a first region where a number of the biomolecule beads is larger than a number of the mark beads, and a second region where a number of the mark beads is larger than a number of the biomolecule beads,
(emphasis added)

Figure 52 of the specification depicts a first region of the biomolecule bead-containing tube (327) containing mark beads (322) and biomolecule beads (DNA

beads, 320), where number of biomolecule beads is larger than number of the mark beads, as claimed. The first region contains attribution information of a biomolecule (DNA, RNA or protein) immobilized on the biomolecule bead. A second region is not depicted in Figure 52. Figures 54a and 54b of the specification depict a second region of the biomolecule bead-containing tube (327) containing mark beads (322a-e, 322f-j, 333, 334) and biomolecule beads (DNA array, 329), where a number of the mark beads is larger than a number of the biomolecule beads, as claimed. The second region contains identification information for the biomolecule bead-containing tube.

The Office relies on Kambara et al. as disclosing a DNA bead array. Applicant respectfully disagrees. Figure 7 of Kambara et al. depicts the representative region of the DNA bead array in which a small particle (31) emitting fluorescence (attached with target DNA) is shown as a closed circle and a small particle (32) not emitting fluorescence (not attached with target DNA) is shown as an open circle. By contrast, Kambara et al. does not disclose, suggest or depict by Figure a DNA bead array comprising two different regions, as claimed. Kambara et al. discloses only identification of hybridized DNA at Col. 2, lines 15-21. In addition, Kambara et al. does not disclose or suggest identification information based on a predetermined order between mark beads and biomolecule beads, as claimed. Finally, Kambara et al. does not disclose or suggest the difference in marker beads to biomolecule beads in the two regions, as claimed. Applicant's amendment to claim 1, therefore, overcomes the Section 102 rejection.

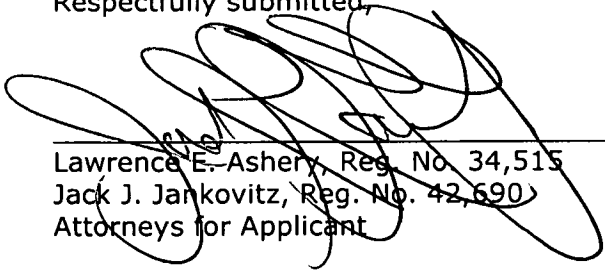
Applicant requests allowance of claim 1. Since claims 2, 4 and 6 depend on claim 1, Applicant requests allowance for claims 2, 4 and 6 because they are likewise not subject to rejection for at least the reasons set forth above for claim 1.

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It is respectfully submitted that pending claims 1, 2, 4 and 6 are in condition for allowance and a notice to this effect is earnestly solicited. The Examiner is invited to telephone Applicant's attorney if it is believed that a telephonic or personal interview would expedite prosecution of the application to allowance.

Respectfully submitted,



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SJ/bj/fp

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